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GNE.3030R1C5

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|----------------|---|--|
| Applicant | : | Goddard et al. (as amended) |
| Appl. No. | : | 10/036,342 |
| Filed | : | December 26, 2001 |
| For | : | POLYPEPTIDES THAT INDUCE CELL PROLIFERATION (as amended) |
| Examiner | : | Kolker, Daniel E. |
| Group Art Unit | : | 1649 |

DECLARATION UNDER 37 CFR §1.131

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

We declare and state as follows:

1. We are the inventors of the invention claimed in the above-captioned patent application.
2. During the time period in which we participated in the events and activities described herein, we were employed by Genentech, Inc., the assignee of the above-captioned application.
3. All of the events and activities described herein were performed by us personally, or by others at our direction as part of our duties as employees of Genentech, Inc.
4. The invention claimed in the above-captioned patent application was conceived and reduced to practice in the United States prior to November 10, 1999 as described below.
5. Prior to November 10, 1999, we conceived of the invention claimed in the above-captioned patent application. This is demonstrated by the attached sequence printout (Exhibit A), which was generated prior to November 10, 1999, and which shows the complete sequence of the nucleic acid having the sequence of SEQ ID NO: 56. The attached printout also shows the complete sequence of the polypeptide which has the sequence of SEQ ID NO: 57. As evidenced by the sequence printout, we were in possession of the complete nucleic acid and amino acid sequences prior to November 10, 1999.
6. The date deleted from Exhibit A is prior to November 10, 1999. This date was redacted pursuant to M.P.E.P. § 715.07. The date that remains is the date the report was printed, April 28, 2005.
7. After these initial experiments, we diligently reduced the claimed subject matter to practice by working to express and purify the encoded polypeptide and to run it systematically

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through many assays. The cDNA was deposited with the American Type Culture Collection (ATCC) on April 20, 1999 and assigned ATCC no. 203948. The protein of interest was assigned a "protein inventory number" (e.g., PIN1205-1), and this protein is a polypeptide having the sequence of SEQ ID NO:57, and is encoded by SEQ ID NO: 56.

8. Exhibit B shows that the protein lot designated PIN1205-1 was delivered to James Pan on a date prior to November 10, 1999 in order to perform assay ASY92, called "Mouse Mesangial Cell proliferation Assay." Also, as shown in Exhibit B, the assay was completed on a date prior to November 10, 1999. Exhibit B also shows that the tested polypeptides tested positive ("All Positives"), thereby confirming the ability of the encoded polypeptide to induce mesangial cell proliferation. Thus, actual reduction to practice occurred on a date prior to November 10, 1999.

9. The dates deleted from Exhibit B all are prior to November 10, 1999. These dates were redacted pursuant to M.P.E.P. § 715.07. The date that remains is the date the report was printed, April 28, 2005.

10. After reducing the invention to practice, we worked with the Genentech, Inc. patent department to prepare a non-provisional patent application, which included the sequences of SEQ ID NO:56 and SEQ ID NO:57, as well as the data showing the ability to induce mesangial cell proliferation. That application was filed on March 1, 2000 as PCT/US00/05601.

11. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

By: A. Goddard
Audrey Goddard

Date: 19 Oct 05

By: _____
Paul J. Godowski

Date: _____

By: _____
Austin L. Gurney

Date: _____

By: _____
James Pan

Date: _____

By: _____
Colin K. Watanabe

Date: _____

By: _____
William I. Wood

Date: _____

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By: _____

Andrey Goddard

Date: _____

By: _____

Paul J. Godowski

Date: 10/18/05

By: _____

Austin L. Gurney

Date: _____

By: _____

James Pan

Date: _____

By: _____

Colin K. Watanabe

Date: _____

By: _____

William I. Wood

Date: _____

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By: _____ Date: _____
Audrey Goddard

By: _____ Date: _____
Paul J. Godowski

By: _____ Date: _____
Austin L. Gurney

By: _____ Date: 10/18/05
James Pan

By: _____ Date: _____
Colin K. Watanabe

By: _____ Date: _____
William I. Wood

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By: _____
Audrey Goddard

Date: _____

By: _____
Paul J. Godowski

Date: _____

By: _____
Austin L. Gurney

Date: _____

By: _____
James Pan

Date: Oct 24/05

By: _____
Colin K. Watanabe

Date: _____

By: _____
William I. Wood

Date: _____

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By: _____
Audrey Goddard

Date: _____

By: _____
Paul J. Godowski

Date: _____

By: _____
Austin L. Gurney

Date: _____

By: _____
James Pan

Date: _____

By: Colin K. Watanabe
Colin K. Watanabe

Date: Oct 20, 2005

By: _____
William I. Wood

Date: _____

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Filed : December 26, 2001

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By: _____
Audrey Goddard

Date: _____

By: _____
Paul J. Godowski

Date: _____

By: _____
Austin L. Gurney

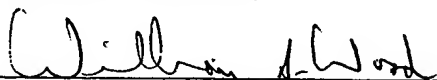
Date: _____

By: _____
James Pan

Date: _____

By: _____
Colin K. Watanabe

Date: _____

By:  _____
William I. Wood

Date: 10/19/05

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>Thursday, April 28, 2005
>DNA92234 [Full]
>887 Sites [All Sites]
> {DNA92234}, sheldens
> Lib309
>Sequence confirmed by phredphrap

      thai
      nlaiII  snaBI
      sphi  fndIII/mvaI      mnlI
      nspHI  bstUI  taiI      taqI
      taiI  nspi  bsh1236I      xhoI
      maeII/hpyCH4IV  belWI/spI  tsp509I[M.ecoRI-]
      aluI  hinII/acyI  cac8I  bsaAI  ecoRI  tliI
      tsp45I  sapI  ahaII/bsaHI  mlul  rsaI  hpy188I  smlI
      maeIII  mboII  aatII  cac8I  aflIII  maeII/hpyCH4IV  paer7I  hpy188I  aciI  bpmI/g
      hphI  sfiCI  earI/ksp632I  hpy99I  hpyCH4V  csp6I  aluI  apoI  avai[M.taqI-]  mnlI  fnu4HI/bsaFI  hpy18
1 TAGGTGACAC TATAGAGAG CTATGACGTC GCATGCACGC GTAGCTAAGC TCGGAATTGC GCTCGAGGAA TGAATACCTC CGAAGCCGCT TTGTTCTCCA
ATCCACTGTG ATATCTTCTC GATACTGCAG CGTAGCTGGG CATGCATTGG AGCTTTAAGC CGAGCTCCTT ACTTATGGAG GCTTCGGCGA AACAAAGAGT
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mspI
hpaII
dsav
bpuAI bssKI bsp1286
bbsI bslI bsmFI talI bmyI
alul mnlI mboII bsaJI maeII/hpyCH4IV msel maeIII nla
101 GAGTGAATA GCTCCACTAT ACCAGCCTCG TCTTCCCTCC GGGGGACAAC GTGGGTCAGG GCACAGAGAG ATATTTAATG TCACCCCTCTT GGGGCTTTCA
CTACACTTAT CGAGGTGATA TGGTCGGAGC AGAAGGAGG CCCCCTCTTG CACCCAGTCC CGTCTCTCTC TATTAATTAC AGTGGGAGAA CCCCAGAAAGT

sau3AI
mboI/ndeII[dam-]
dpnII[dam-]
dpmI[dam+]
alwI[dam-]
nlaIV

pleI mnlI bstYI/xhoII hgaI
mlyI rnaI bamHI bslI tseI
hinFI maeI hpy188I bstXI alwI[dam-] hpy188III fnu4HI/bso
bsmFI mnlI bfaI eoo57I bpmI/gsuI[dcm-] bslI auaI bbvI bsmFI
201 TGGGACTCCC TCTGCCACAT TTTTGGAGG TTGGGAAGT TGTAGAGGC TTCAAGACTC CAGCCTAATG GATCCCAAC TCGGAGAGAT GGTCTCCCTCC
ACCTGAGGG AGACGGTGA AAAACCTCC AACCTTTCA AGATCTCCG AGTCTTGAG GTGGATATAC CTAGGGTTG AGCCCTCTTA CCGACGCAGG
1 M D P K L G R M A A S
^MET

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| | | | |
|--------------|--------------|-----------------|-----------------------|
| fnu4HI/bsoFI | tseI | fnu4HI/bsoFI | ms |
| acII | acII | | |
| tseI | mmwOI | thai nlalII | haeII |
| mmwOI | fnu4HI/bsoFI | nspHI | mspI |
| fnu4HI/bsoFI | fnuDII/mvnI | scrFI[M.hpaII-] | |
| bbvI | bbvI | bstUI[M.hhaI-] | ncII |
| tseI | tseI | bsh1236I | dsav hinPI |
| mmwOI | fnu4HI/bsoFI | hinPI nspI | mmwOI hpaII |
| fnu4HI/bsoFI | hhaI/cfoI | mnII | acII bssKI |
| bbvI | bbvI | bpml/gsuI[dcn-] | bseRI |
| cac8I | bbvI | bpml/gsuI[dcn-] | mmnII bsaJI hhaI/cfoI |
| CTGCTGGCTG | TGCTGCTGCT | GCTGCTGGAG | CGCGCGATGT |
| GACGACCGAC | ACGACGACGA | CGACGACCTC | CGCGCGATGT |
| 301 | CTGCTGGCTG | TGCTGCTGCT | GCTGCTGGAG |
| GACGACCGAC | ACGACGACGA | CGACGACCTC | CGCGCGATGT |
| 12 | L L A V | L L L L | E R G M F |
| | | S S P S | P P A L L |
| | | E K V | F Q Y |
| | | I D L | L H |

mboII
 earI/ksp632I
 sapI
 aluI
 sstI
 sacI
 hglAI/aspHI[M.aluI-
 ecl136II
 bspI286[M.aluI-]
 bsiHKAI hpy188I
 bpy188I bmyI eco57I ea
 banII[M.aluI-] cf
 mnII eco57I
 tth111II/aspI
 pleI
 pflFI
 mlyI
 hinfI
 haeIII/palI
 mscI/balI
 eaeI taqI
 cfrI hpy188III
 apoI alwNI[dcw-]
 foki tsp509I alw26I/bsmAI
 bstF5I hpyCH4V
 bsgI hgal eco57I
 hpy188III
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 TAGTCTTACT TAAACACGTC TGCAGCTTCC TCACCCACCG GTAGCTCTCG CTGAGACAGG TCGGACACGG AGCGAAGTCT GTTCTCAGA AGTCTTACTA
 46 Q D E F V Q T L K E W V A I E S D S V Q P V P R F R Q E L F R M M

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mmwOI
scrFI[dcM-]
pspGI sau96I[M.haeIII-]
mvaI pspOMI/bsp120I
ecoRII[dcM-]
dsaV[dcM-]
bstNI nlaIV
bsaXI[dcM-]
hinPI bsp1286[M.haeIII-]
hhaI/cfoI sfiI
tseI bsaJI bmyI
fnu4HI/bsOFI sau96I[M.haeIII-]
bbvI apyI[dcM+]
dsaI tseI hpyCH4V banII[M.haeIII-]
btgI/bstDSI sfcI haeII apaI mnlI
bsaJI aciI tseI alwNI[dcM-] haeIII/palI bsaJI
mmwOI fnu4HI/bsOFI pstI[M.HI-] nlaIV haeIII/palI
bceAI bbvI fnu4HI/bsOFI eco0109I/draII nlaIII mnlI bbvI
haeIII/palI bbvI alw26I/bsmAI bglI[M.haeIII-] pshAI avarI alw26I/bsmAI hpy188I mnlI
501 GGCCGTGGCT GCGGACACGC TGCACGCCCT GGGGGCCCGT GTGGCTGGG TGGACATGGG TCCTCAGCAG CTGCCGATG GTCAGAGTCT TCCATATCCT
CCGGCACCGA CGCCTGTGG ACCTGTACCC ACCGTACCC CACCGGAGCC ACCTGTACCC AGGATCGTC GACGGGCTAC CAGTCTCAGA AGTTATGGA
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scrFI[dcM-]
pspGI
mvaI
ecorII[dcM-]
dsav[dcM-]
bstNI bslI
bskI[dcM-]
apyI[dcM+]
fokI cfrI bsrI
bstFSI haeIII/palI
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GGGCACTAGG ACCGGCTTGA CCGCTCGCTA GGTGCTTTC CGTGCGACAC GAAGATCCG GTGAACCTGC ACGTGGGACG ACTGGCCCCG CTACCCACCG
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scrFI[M.hpaII-]
ncII
tseI
fnu4HI/bsoFI mspI
bsgI cac8I hpaII
tail bbvI dsav
maeII/hpyCH4IV bskI
btri hpyCH4V bsaJI
bslI
sau3AI mwoI
draIII
mboI/ndeII[dam-] bst4CI/hpyCH4III
dprII[dam-] bstAPI eaeI
dprI[dam+] nlaIV cfrI
alwI[dam-] banI mwoI bceAI
601 CCGTCATCC TGGCGAACT GGGGAGCGAT CCCACGAAAG GCACCGTGTG CTTCTAGGC CACTTGGACG TGCAGCTGC TGACCGGGGC GATGGGTGGC
GGGCACTAGG ACCGGCTTGA CCGCTCGCTA GGTGCTTTC CGTGCGACAC GAAGATCCG GTGAACCTGC ACGTGGGACG ACTGGCCCCG CTACCCACCG
112 P V I L A E L G S D P T K G T V C F Y G H L D V Q P A D R G D G W L

sau96I
nlaIV
avaII
accI
mnlI mcrI
bsrI bsrI
eco0109I/draII
alwI[dam-] hae
sau96I[M.haeIII-] dprII[dam-] bi
haeIII/palI dprI[dam+] hh
701 TCACGGACCC CTATGTGCTG ACGGAGTAG ACGGGAACCT TTATGACGA GGAGCGACCG ACAACAAGG CCTGTCTTG GCTTGGATCA ATGCTGTGAG
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146 T D P Y V L T E V D G K L Y G R G A T D N K G P V L A W I N A V S

sau3AI mwoI
bslI
mboI/ndeII[dam-]

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scrFI[dcn-]      mnlI
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mvaI             sau3AI
ecorII[dcn-]     pspGI
dsav[dcn-] mboI/ndeII[dam-]
bstNI            dpnII[dam-]
bsp1286          bstYI/xhoII
bmyI bsaKI[dcn-] mboII
hpy188I apyI[dcn+] dpnI[dam+]
eco57I bsaJI     bglII
mwoI banII bpmI/gsuI[dcn-]
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179 A F R A L E Q D L P V N I K F I I E G M E E A G S V A L E E L V E

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ncII
mspI
hpaII
dsav
bskI
bsaJI
xmaI/ps
smaI
scrFI{M
ncII
daav
bskI
bsaJI
aval{M.
nlaIV
cac8I
alwI{dam-}
dpmI{dam-}
dpmI{dam+}
bpy188I
tsp509I
alwI{dam-}
cac8I
nlaIV
901 AAAGAAAGG ACCGATTCTT CTCGTGTG GACTACATTG TAATTGAG TAACCTGTGG ATCAGCCAA GGAAGCCAGC AATCACTTAT GGAACCGGG
TTTCTTTTCC TGGCTAAGAA GAGACCACAC CTGATGTRAC ATTAAAGTCT ATGGACACCC TAGTCGGTTT CCTTCGGTCC TTAGTGAATA CCTTGGGCC
212 K E K D R F F S G V D Y I V I S D N L W I S Q R K P A I T Y G T R G

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scrFI[dcn-]
pspGI
mvaI
ecoRII[dcn-]
dsaV[dcn-]
bstNI
bskI[dcn-]
bsmAI
bsaI
hphI
nlaIII mnlI hpyCH4V apyI[dcn+] bspCNI
alul nlaIII mnlI hpyCH4V apyI[dcn+] bspCNI
1001 GGAACAGCTA CTTCATGGTG GAGGTGAAT GCAGAGACCA GGATTTTCAC TCAGGACCT TTGGTGGCAT CCTTCATGGA CCAATGGCTG ATCTGGTTGC
CCTGTGGAT GAGTACCAC CTCACCTTA CGTCTCTGGT CCTAAAGTG AGTCCTTGA AACCCCGTA GGAAGTACTT GGTACCGAC TAGACCAACG
246 N S Y F M V E V K C R D Q D F H S G T F G G I L H E P M A D L V A
sau3AI sap
mboI/ndeII[da
dpsII[dam-]
dpsII[dam+] ea
nlaIII
fokI rcaI
bstF5I hpy188III
sfaNI bspHI

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```

scrFI[dcm-]
pspGI
mvaI
ecoRII[dcm-]
dsav[dcm-]
bstNI
bssKI[dcm-]
sau96I[dcm-]
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mvaI bsmFI
ecoRII[dcm-]
dsav[dcm-]
bstNI bsaJI
bssKI[dcm-] tfII
apyI[dcm+] hinfI
mboII
mboII xmnI nlaIV
apyI[dcm+] hinfI asp700 mnlI earI/ksp632I
1101 TCTTCTCGGT AGCCTGCTAG ACTCGTCTGG TCATATCTCG GTCCCTGGAA TCTATGATGA AGTGGTTCCT CTTACAGAAG AGGAATRAA TACATACAAA
AGACAGCCA TCGGACCATC TGACGAGACC AGTATAGGAC CAGGACCTT AGATACACTT TCACCAAGGA GAATGCTTC TCCTTATTT ATGTATGTTT
279 L L G S L V D S S G E I L V P G I Y D E V V P L T E E I N T Y K

```

[illegible]

| | | |
|---|-----------|--------|
| nlaiii | tsp45I | pl |
| msli | maeIII | ml |
| | hphI | hi |
| msli | mbolI | xlmi |
| msli | hpy188III | asp700 |
| bsXI | | nlaiI |
| 1401 CCCTCACATG AATGTCTCTG CCGTGGAAA ACAGGTGACA CGACATCTTG AACATGTGTT CTCCAAAAGA AATAGTTCCA ACAAGATGGT TGTTCATG | | |
| GGGAGTGTAC TTACACAGAC GCCACCTTTT TGTCCACTGT GCTGTAGAC TTCTACACAA GAGGTTTTCT TTATCAGGT TGTTCACCA ACAAGGTAC | | |
| 379 P H M N V S A V E K Q V T R H L E D V F S K R N S S N K M V V S M | | |

| | | |
|--|------------------|-----|
| | tspRI | saI |
| | hpy188I | mbo |
| | mmol | dpn |
| | sa3AI | dpn |
| | bs4CI/hpyCH4III | alw |
| | mbol/ndeII[dam-] | |
| | tseI | |
| | fnu4HI/bsoFI | |
| | bbvI | |
| | bsrI | |
| | bsaJI | |
| | hpyCH4V | |
| | dsal | |
| | btgl/bstDSI | |
| | maeI | |
| | bfaI | |
| 1501 ACTCTAGGAC TACACCGTG GATTGCAAT ATTGATGACA CCCAGTATCT CCGAGCRAAA AGAGCGATCA GAACAGTGT TGGACAGAA CCAGATATGA | | |
| TGAGATCCCTG ATGTGGGCAC CTAAGTTTA TAACTACTGT GGTCTATAGA GGTCTGTTT TCTCGCTAGT CTGTGACAA ACCTTGTCTT GGTCTATCT | | |
| 412 T L G L H P W I A N I D D T Q Y L A A K R A I R T V F G T E P D M I | | |

```

sau3AI
mboI/ndeII[dam-]
dpmII[dam-]
fokI dpmI[dam+]
bstF5I
scrFI[M.hpaII-]
ncII alwI[dam-]
mspI nlaIV
hpaII bstXI/xhoII
dsaV bamHI
bsaKI alwI[dam-] muni/mfeI
msp509I
1601 TCCGGGATGG ATCCACCAATT CCAATTGCCA AAATGTCCA GGAGATGTC CACAAGGCG TGGTGCTAAT TCCGCTGGGA GCTGTGTGATG ATGGAGAACA
AGGCCCTACC TAGGTGGTAA GGTAAACGGT TTACAAAGT CCTCTAGCAG GTGTCTCGC ACCACGATTA AGCGGACCGT CGACARCTAC TACCTCTTGT
446 R D G S T I P I A K M F Q E I V H K S V V L I P L G A V D D G E H

sau3AI
serFI[dcn-]
pspGI mboI/ndeII[dam-]
mvaI dpmII[dam-]
ecorII[dcn-]
dsaV[dcn-]
bstNI dpmI[dam+]
bssKI[dcn-]
msp509I
mboI aciI aluI
mspAII/nspBII
tsp509I
479 S Q N E K I N R W N Y I E G T K L F A A F F L E M A Q L H O

trn9I
tseI
nlaIV.
mmlI tsp509I bbvI ddeI
sau96I[M.haeIII-]
'haeIII/palI aseI/asnI/vspI
1701 TTCGCAGAT GAGAAATCA ACAGGTGGA CTACATAGAG GGAACCAAT TATTGTCTGC CTTTCTCTTA GAGATGGCCC AGCTCCATTA ATCACAAGAA
AAGCGTCTTA CTCCTTTAGT TGTCACCTT GATGATCTC CCTTGGTTA ATAAACGACG GAAAAGAA CTCTACCGGG TCGAGGTAAT TAGTGTCTT
479 S Q N E K I N R W N Y I E G T K L F A A F F L E M A Q L H O

```

sau3AI
mboI/ndeII[dam-]
dpnII[dam-]
dpnI[dam+]
hpy188I
sau3AI tspRI
hpy188I alwI[dam-]
xmaI mboI/ndeII[dam-] hphI
maeI dpnII[dam-] tfII mnlI foki bfaI foki
bfaI dpnI[dam+] hinFI[M.hphI-] bstFSI bstFSI
1801 CCTCTAGTC TGAICTGATC CACTGCACAGA TTCACTCTCC CCACATCCCT AGACAGGGAT GGAATGTAAA TATCCAGAGA ATTGGGTCT AGTATAGTAC
CGAAGATCAG ACTAGACTAG GTGACTGTCT AAGTGGAGGG GGTGTAGGGA TCTGTCCCTA CCTTACATTT ATAGGTCTCT TAACCCAGA TCATATCATG

sau96I
nlaIV
avaII hpyCH4V
ppuMI bsgI
ecoO109I/draII
tru9I tspRI
mseI bsmFI btsI
ahaII/draI ecoRV alwI[dam-] sspI
1901 ATTTTCCCTT CCATTAAAA TGCTTTGGGA TATCTGGATC AGTAATAAAA TATTCAAAG GCACAGATGT TGAATATGT TTAGGTCCC CCCTGCACA
TAAAGGGAA GGTAATTTT ACAGAACCTT ATAGACCTAG TCATTATTTT ATAAAGTTTC CGTGTCTACA ACCTTTACCA ANTCCAGGG GGTGACGTGT

```

scrFI[dcn-]
pspGI
mvaI
ecorII[dcn-]
dsav[dcn-]
bstNI
bssKI[dcn-]
apyI[dcn+]
bslI      tfiI
hpyCH4V   bsaJI   hinfI
2001 CCTTCTCCAA GTCATAGCTG CTGACAGCAA CTGATTCCTG CCAGTCCTG TCGATAGCC CCAGGATGG ATTCCTTCCA ACCTTTTAGC ATATCTCCAA
GGAAGGAGTT CAGTATCGAC GAACGTGCTT GAACATAAGG GGTTCAGGAC ACCTTATCGG GGTCTTACC TAAGGAGGT TGGAAAAATCG TATAGAGGTT

tseI
cac8I
tseI   fnu4HI/bsoFI
fnu4HI/bsoFI
bbvI   bbvI   hpyCH4V
alul   hpyCH4V
mnlI
2001 CCTTCTCCAA GTCATAGCTG CTGACAGCAA CTGATTCCTG CCAGTCCTG TCGATAGCC CCAGGATGG ATTCCTTCCA ACCTTTTAGC ATATCTCCAA
GGAAGGAGTT CAGTATCGAC GAACGTGCTT GAACATAAGG GGTTCAGGAC ACCTTATCGG GGTCTTACC TAAGGAGGT TGGAAAAATCG TATAGAGGTT

nspl      tsp45I
avaII     bssSI
ppuMI     hgiAI/aspHI
ecoO109I/draII hpy188III
zmaI      bsp1286
maeI      smlI   bslHKAI      foki
bfaI      mnlI   bmyI   maeIII   bstE5I   dpnI[dam+]
2101 CCTTGGCAAT TGAATGGCAT AATCAGCTCG GTTGTCTTC TAGTCTCCTA AGTCTCTGAG ACACATAATC ATTCCATCCA ATGATCGCT TGCCTTACC
GGAAGCTTA ACTAACCGTA TTAGTGAGG CAAACGHAAG ATCCAGGAGT TCAGGAGCAC TGTGTATTAG TAAGGTAGGT TACTAGCGGA AACGAAATGG

tru9I
mseI      bsmAI
aseI/asnI/vspI   bsaI      tspRI
2201 ACTCTTTCCT TTTATCTTAT TAATAAAAT GTTGTCTCCT ACCACTGNT CCCAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA AAAAAAAA
TGAGRAAGGA AARTAGAATA ATTATTTTA CAACGAGG TGGTACNGA GGGTTTTTT TTTTTTTTT TTTTTTTTT TTTTTTTTT

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scrFI[M.hpaII-]
ncII
mspI
hpaII
dsav
bsKI      sau96I rsal
xmaI/pspAI  rsrII/cspI
smaI      mroI   nlaIV
          scrFI[M.hpaII-] cpoI kpnI hpyCH4V
          acII
          fnu4HI/bsoFI      taqI nciI      hpy188III csp6I
          haeIII/palI      sstI salI dsav      bspMI bani sfcI
          mcrI      sacI hincII/hindII[M.taql-] avalII[M.hpaII-]
          eagI/xmaIII/ecI XI aluI accI[M.taql-] tru9I mspI asp718
          eaeI      hgiAI/aspHI[M.aluI-] mseI bspEI cfr10I/bsrFI
          cfrI      rmaI ecII36II      bssKI aseI/asnI/vspI acc65I cac8I
          bsiEI      maeI bsp1286[M.aluI-] xmiI tsp509I bsaWI pstI
          notI      bfaI bsiHKAI      bsaJI tsp509I bsaWI ageI sse8387I
          fnu4HI/bsoFI      bmyI hpy99I avai[M.hpaII-] hpaII mspI bspMI      rsal
          acII      speI      banII[M.aluI-]      asp700      accIII hpaII sbfI      csp6I aluI sf
2301 AAAAAAAAAA AAAGGGGGC CGCCGACTAG TGAGTCGTC GACCCGGGAA TTAATTCGG ACCGGTACCT GCAGCGGTAC CAGCTTTCCC
TTTTTTTTTT TTTTTTTTTT TTCCCGCG CGGGCTGATC ACTCGAGCAG CTGGGCCCTT AATTAAGGCC TGGCCCATG CGTCCCATG GTCGAAGGG

```

```

pleI
mlyI
hinfi      aluI
2401 TATAGTAGT CGTATTAGAG CTGG
      ATATCACTCA GCATATCTC GAAC

```

> length: 2425

| | |
|----------------------|---|
| aatII (GACGTC) : | 25 |
| acc65I (GTACC) : | 1295 2374 |
| accI (GTMKAC) : | 727 1117 2348 |
| accIII (TCGGA) : | 2366 |
| acII (CCGC) : | 86 332 355 511 1420 1672 2326 2330 |
| acyI (GRCGYC) : | 25 |
| afIII (ACRYGT) : | 37 |
| ageI (ACCGGT) : | 2371 |
| ahaII (GRCGYC) : | 25 |
| ahaIII (TTTAA) : | 1914 |
| aluI (AGCT) : | 19 48 110 485 569 1006 1680 1781 2016 2343 2392 2419 |
| alw26I (CAGNNCTG) : | 418 523 565 |
| alwI (GGATCNNN) : | 270 271 628 785 959 1319 1599 1609 1610 1817 1936 |
| alwNI (CAGNNCTG) : | 418 523 565 |
| apaI (GGCCCC) : | 533 |
| apoI (RAATTY) : | 54 409 841 1249 1381 1879 |
| apyI (CQWGG) : | 528 609 813 882 1038 1113 1137 1144 1342 1363 1638 2061 |
| aseI (ATTAAT) : | 1787 2219 2360 |
| asni (ATTAAT) : | 1787 2219 2360 |
| asp700 (GAANNNTTC) : | 375 1159 1379 1469 2358 |
| asp718 (GCTACC) : | 1295 2374 |
| asphi (GWCWC) : | 484 2152 2342 |
| aspi (GACNNNGTC) : | 451 |
| avaI (CYCGRG) : | 62 280 995 2353 |
| avaII (SGWCC) : | 559 705 909 1140 1985 2143 2369 |
| ballI (TGGCCA) : | 437 |
| bamHI (GGATCC) : | 270 1609 |
| banI (GGYRCC) : | 640 1295 2374 |

| | |
|----------------------------|--|
| banII (GRGTC): | 484 533 809 2342 |
| bbsI (GAAGACNNNNNN): | 130 379 587 |
| bbvI (GCAGC): | 292 312 315 318 321 508 519 522 567 570 672 1235 1552 1756 2017 2024 |
| bceAI (ACGGCCNNNNNNNNNN): | 502 656 |
| bfaI (CTAG): | 243 1210 1216 1396 1504 1805 1849 1889 2140 2337 |
| bglI (GCCNNNNNGGC): | 535 |
| bglII (AGATCT): | 822 |
| bmyI (GDGCHC): | 159 484 533 809 2152 2342 |
| bpmI (CTGGAG): | 96 258 325 814 883 1290 |
| bpuAI (GAAGACNNNNNNNN): | 130 379 587 |
| bsaAI (YACGTR): | 42 |
| bsaHI (GRGTC): | 25 |
| bsaI (GGTCTCNNNN): | 1034 2234 |
| bsaJI (CCNNGG): | 139 359 503 528 545 684 812 881 995 996 1143 1516 2060 2353 |
| bsaWI (WCCGGW): | 1226 2127 2366 2371 |
| bseRI (GAGGACNNNNNNNN): | 342 749 1270 |
| bsgI (GTGCAG): | 415 670 1994 |
| bsh1236I (CGCG): | 38 331 1329 |
| bsiEI (CGRYCG): | 755 2327 |
| bsiHKA1 (GWGCWC): | 484 2152 2342 |
| bsiWI (CGTACG): | 40 |
| bsLI (CCNNNNNNNGG): | 135 184 274 275 354 396 614 631 771 1847 1848 2060 |
| bsmAI (GTCTC): | 1034 2235 |
| bsmAI (GTCTC): | 1034 2235 |
| bsmFI (GGGACNNNNNNNNNNNN): | 143 202 297 1141 1399 1986 |
| bsoFI (GCNGC): | 85 292 312 315 318 321 332 508 519 522 567 570 672 1235 1552 1756 |
| | 2017 2024 2326 2329 |
| bsp120I (GGGCC): | 533 |
| bsp1286 (GDGCHC): | 159 484 533 809 2152 2342 |
| bspCNI (CTCAGNNNNNNNNNN): | 563 1050 |

| | |
|----------------------|---|
| bspEI (TCGGGA) : | 2366 |
| bspHI (TCATGA) : | 1074 |
| bspMI (ACCTGC) : | 2377 |
| bspMII (TCCGGA) : | 2366 |
| bsrFI (ROCGGY) : | 2371 |
| bsrI (ACTGGN) : | 384 618 1542 |
| bsSKI (CCNGG) : | 139 360 528 609 684 813 882 995 996 1038 1113 1137 1144 1239 1342 |
| | 1363 1602 1638 2061 2353 2354 |
| bsSI (CTCGTG) : | 2155 |
| bst4CI (ACNGT) : | 643 1354 1573 |
| bstAPI (GCANNNNTG) : | 641 |
| bstDSI (CCRYGG) : | 503 1516 |
| bstF5I (GGATG) : | 405 606 857 1068 1203 1605 1844 1857 2175 |
| bstNI (CCWGG) : | 528 609 813 882 1038 1113 1137 1144 1342 1363 1638 2061 |
| bstUI (CGCG) : | 38 331 1329 |
| bstXI (CCANNNNTGG) : | 260 1478 |
| bstYI (RGATCY) : | 270 822 1609 |
| btgI (CCRYGG) : | 503 1516 |
| btri (CACGTC) : | 667 |
| btsI (GCAGTGNN) : | 1992 |
| cac8I (GCNNGC) : | 31 35 303 675 868 975 2020 2381 |
| cfoI (CGGC) : | 330 364 525 800 1328 |
| cfr10I (ROCGGY) : | 2371 |
| cfrI (YGGCCR) : | 437 500 611 657 1365 2327 |
| cpoI (CGWCCG) : | 2368 |
| csp6I (GTAC) : | 41 387 1296 1897 2375 2387 |
| cspI (CGWCCG) : | 2368 |
| ddeI (CTNAG) : | 563 1050 1265 1767 |
| dpiI (GATC) : | 271 628 786 823 960 1030 1320 1566 1599 1610 1644 1812 1817 1937 |
| | 2183 |

dpnII (GATC) : 271 628 786 823 960 1090 1320 1566 1599 1610 1644 1812 1817 1937
 2183
 draI (TTTAA) : 1914
 draII (RGNCCY) : 532 558 768 1984 2142
 draIII (CACNNNGTG) : 642
 dsaI (CRYGG) : 503. 1516
 dsaV (CCNGG) : 139 360 528 609 684 813 882 995 996 1038 1113 1137 1144 1239 1342
 1363 1602 1638 2061 2353 2354
 437 500 611 657 1365 2327
 eaeI (YGGCCR) : 2327
 eagI (CGGCG) : 15 487 862 1100 1177
 earI (CTCTTCNNNN) : 484 2342
 eclI36II (GAGCTC) : 2327
 eclXI (CGGCG) : 250 424 474 489 804
 eco57I (CTGAAG) : 396
 ecoNI (CCTNNNNAGG) : 532 558 768 1984.2142
 ecoO109I (RGNCCY) : 54
 ecoRI (GAATTC) : 528 609 813 882 1038 1113 1137 1144 1342 1363 1638 2061
 1929
 ecoRII (CCWGG) : 85 292 312 315 318 321 332 508 519 522 567 570 672 1235 1552 1756
 ecoRV (GATATC) : 2017 2024 2326 2329
 fna4HI (GCNGC) : 38 331 1329
 fnuDII (CGCG) : 405 606 857 1068 1203 1605 1844 1857 2175
 foki (GGATG) : 96 258 325 814 883 1290
 gauI (CTGGAG) : 363 524 799
 haeII (RGGGCT) : 438 501 534 543 612 658 769 1366 1776 2328
 haeIII (GGCC) : 295 420
 hgaI (GACGC) : 484 2152 2342
 hgiAI (GNGCWC) : 330 364 525 800 1328
 hhaI (GCGC) : 330 364 525 800 1328
 hinPI (GCGC) :

hincII (GTYRAC): 2348
 hindII (GTYRAC): 2348
 hinfI (GANTC): 204 451 585 914 1120 1148 1275 1500 1829 2070 2407
 hinfI (GRCGYC): 25
 hpaII (CCGG): 139 361 684 996 1227 1239 1602 2128 2354 2367 2372
 hphI (GGTGA): 3 181 346 1023 1434 1832
 hpy188I (TCNGA): 51 79 252 476 491 582 806 946 1568 1809 1814
 hpy188III (TCNGA): 97 281 402 443 1051 1074 1209 1289 1446 1873 1933 2156 2366
 hpy99I (CGWCG): 27 2347
 hpyCH4III (ACNGT): 643 1354 1573
 hpyCH4IV (ACGT): 26 43 149 668
 hpyCH4V (TGCA): 34 416 521 671 1030 1283 1524 1995 2023 2051 2104 2380
 kpnI (GGTACC): 1295 2374
 ksp632I (CTCTTCNNNN): 15 487 862 1100 1177
 maeI (CTAG): 243 1210 1216 1396 1504 1805 1849 1889 2140 2337
 maeII (ACGT): 26 43 149 668
 maeIII (GTNAC): 4 180 1435 2158
 mboI (GATC): 271 628 786 823 960 1090 1320 1566 1599 1610 1644 1812 1817 1937
 mboII (GAAGA): 2183
 mcrI (CGRYCG): 15 131 380 488 588 825 862 917 1101 1177 1219 1450
 mfeI (CAATTG): 755 2327
 mluI (ACGCGT): 1622
 mlyI (GAGTCNNNNN): 37
 mnlI (CCTC): 204 451 585 1120 1500 2407
 mroI (TCCGGA): 65 77 126 185 209 227 246 344 350 396 469 545 562 598 724 749 853
 msci (TGGCCA): 865 886 1021 1168 1180 1270 1287 1293 1324 1402 1738 1835 2005 2146
 mseI (TTAA): 2366
 mslI (CAYNNNRGTG): 437
 mslI (CAYNNNRGTG): 175 1788 1915 1981 2220 2361
 mslI (CAYNNNRGTG): 400 1405 1407

mspAI (CMGCKG) :
mspI (CCGG) :
munI (CAATTG) :
mvaI (CCWGG) :
mvaI (CGCG) :
mwoI (GCNNNNNGGC) :
ncII (CCSGG) :
ndeII (GATC) :

nlaIII (CATG) :
nlaIV (GGNNCC) :
notI (GCGGCCGC) :
nspBII (CMGCKG) :
nspHI (RCATGY) :
nspI (RCATGY) :
paerJI (CTCGAG) :
pali (GGCC) :
pflFI (GACNNNGTC) :
pleI (GAGTCNNNN) :
ppuMI (RGGWCCY) :
pshAI (GACNNNGTC) :
pspAI (CCCGGG) :
pspGI (CTWGG) :
pspOMI (GGGCCC) :
patI (CTGCAG) :
pvuII (CAGCTG) :
zsaI (TCATGA) :
tmaI (CTAG) :
rsaI (GTAC) :
rarII (CGGWCCG) :

568 1672
139 361 684 996 1227 1239 1602 2128 2354 2367 2372
1622
528 609 813 882 1038 1113 1137 1144 1342 1363 1638 2061
38 331 1329
303 312 315 321 357 502 535 641 650 793 802 1555 1665
139 360 684 995 996 1239 1602 2353 2354
271 628 786 823 960 1090 1320 1566 1599 1610 1644 1812 1817 1937
2183
32 199 336 555 1014 1075 1315 1407 1497
270 532 533 558 640 705 991 1054 1140 1164 1295 1609 1741 1985 2374
2326
568 1672
31 335
31 335
62
438 501 534 543 612 658 769 1366 1776 2328
451
204 451 585 1120 1500 2407
558 1984 2142
553
995 2353
528 609 813 882 1038 1113 1137 1144 1342 1363 1638 2061
533
520 2379
568
1074
243 1210 1216 1396 1504 1805 1849 1889 2140 2337
41 387 1296 1897 2375 2387
2368

sacI (GAGCTC) : 484 2342
salI (GTCGAC) : 2348
sapI (GCTCTTCNNNN) : 15 486 1099
sau3AI (GATC) : 271 628 786 823 960 1090 1320 1566 1599 1610 1644 1812 1817 1937
2183
sau96I (GGNCC) : 533 534 559 705 769 909 1140 1776 1985 2143 2369
sbfI (CCTGCAGG) : 2378
scriFI (CCNGG) : 139 360 528 609 684 813 882 995 996 1038 1113 1137 1144 1239 1342
1363 1602 1638 2061 2353 2354
1067
sfanI (GCATC) : 10 520 2379 2400
sfcI (CTRYAG) : 534
sfii (GGCCNNNNNGGCC) : 995 2353
smaI (CCCGGG) : 62 2006 2147
smli (CTYRAG) : 42
snabi (TACGTA) : 2336
speI (ACTAGT) : 31
sphI (GCATGC) : 40
splI (CGTACG) : 2378
sse8387I (CCTGCAGG) : 1528 1949
sspi (AATATT) : 484 2342
sstI (GAGCTC) : 26 43 149 668
taiI (ACGT) : 63 443 1259 1322 2349
taqI (TCGA) : 914 1148 1275 1829 2070
tfii (GAWTC) : 38 331 1329
thai (CGCG) : 62
tliI (CTCGAG) : 175 1788 1915 1981 2220 2361
tru9I (TTAA) : 292 312 315 318 321 508 519 522 567 570 672 1235 1552 1756 2017 2024
tsei (GCWGC) : 4 180 1435 2158
tsp45I (GTSAC) : 55 410 842 942 1250 1382 1623 1668 1748 1880 2107 2359 2363
tsp509I (AATT) :

tspBI (NNCAGTGNN) :
tth111I (GACNNNGTC) :
vspI (ATTAA) :
xbaI (TCTAGA) :
xhoI (CTCGAG) :
xhoII (RGATCY) :
xmaI (CCCGGG) :
xmaIII (CGCCCG) :
xmnI (GAANNNTTC) :

not found:

“*Chlorophyll*”

100-443897-100

A8792

Assay Name: Mouse Mesangial Cell proliferation Assay

ABLE NINE **NU MESS OLL PROFIT**

Class Primary

Formal 96 Wei

•

Requirements

[illegible]

Propostas 3

Buttons 2

- **Prevention**

Species Mouse .

Purpose Screen SPD1 proteins which can stimulate Mesangial Cell Proliferation

Protocol conc. (1%–0.1%) in serum-free Media and added to the cells. On day 4, A

Matrix Promoting kit for the assay:

Plastic Calculation *replotted average*

Blends Cut-off > 15%

In Vivo In Vitro

Comments

Delta Enters
Quartz

Data Canceled

Department, Endocrinology .

Notebook C

Assays

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